

Title (en)

Data transmission system using error correction without expansion of bandwidth.

Title (de)

Datenübertragungssystem mit Fehlerkorrektur ohne Vergrößerung der benutzten Frequenzbandbreite.

Title (fr)

Système de transmission de données avec correction d'erreurs sans élargissement de la largeur de bande.

Publication

EP 0606916 A1 19940720 (EN)

Application

EP 94100459 A 19940113

Priority

JP 463093 A 19930114

Abstract (en)

In an error correction apparatus which includes a transmitter (10) and a receiver (11) and which transmits, from the transmitter to the receiver, a block code which is composed of a data bit signal sequence and a check bit signal sequence for correction of the data bit signal sequence and which has a predetermined frequency band, the transmitter modulates the check bit signal sequence so that a check bit modulated signal is located in a part of the predetermined frequency band with the remaining frequency band occupied by a data bit modulated signal. The receiver (11) separates the data bit modulated signal from the check bit modulated signal by the use of a decision feedback equalizer (29a) and a band pass filter (41) to reproduce the data bit signal sequence and the check bit signal sequence and to correct an error of the data bit signal sequence with reference to the check bit signal sequence reproduced in the receiver (11). <IMAGE> <IMAGE>

IPC 1-7

H04L 5/06; H04B 17/00; H04L 1/00

IPC 8 full level

H04B 1/66 (2006.01); **H04L 1/00** (2006.01); **H04L 5/06** (2006.01)

CPC (source: EP US)

H04L 5/06 (2013.01 - EP US)

Citation (search report)

- [A] EP 0051725 A1 19820519 - ANT NACHRICHTENTECH [DE]
- [A] DE 3232599 A1 19840308 - ANT NACHRICHTENTECH [DE]
- [A] A. BATEMAN:: "Feedforward Transparent Tone-In-Band: Its Implementations and Applications.", IEEE TRANSACTIONS ON VEHICULAR TECHNOLOGY, vol. 39, no. 3, August 1990 (1990-08-01), NEW YORK US, pages 235 - 243, XP000148912
- [A] J. L. ORTON / K. FEHER:: "An Improved Channel Coding Algorithm for Low-Frequency Spectral Suppression.", IEEE TRANSACTIONS ON COMMUNICATIONS, vol. 37, no. 10, October 1989 (1989-10-01), NEW YORK US, pages 1088 - 1091, XP000070205
- [A] PATENT ABSTRACTS OF JAPAN vol. 10, no. 228 (E - 426)

Cited by

EP0862300A3; US6285718B1

Designated contracting state (EPC)

DE FR GB IT

DOCDB simple family (publication)

EP 0606916 A1 19940720; **EP 0606916 B1 19980408**; DE 69409410 D1 19980514; DE 69409410 T2 19981119; JP H06216806 A 19940805; JP H0817339 B2 19960221; US 5479417 A 19951226

DOCDB simple family (application)

EP 94100459 A 19940113; DE 69409410 T 19940113; JP 463093 A 19930114; US 18222094 A 19940114